U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Valley Pike VOC Site - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: **POLREP #3**
Progress
Valley Pike VOC Site

Riverside, OH
Latitude: 39.7975660 Longitude: -84.1320980

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From: Steven Renninger, On-Scene Coordinator
Date: 5/19/2014
Reporting Period: March 15 through May 15, 2014

1. Introduction

1.1 Background

Site Number:	C5U2	**Contract Number:**	EP-S5-08-02
D.O. Number:	30281.0134	**Action Memo Date:**	10/29/2013
Response Authority:	CERCLA	**Response Type:**	Time-Critical
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	12/9/2013	**Start Date:**	12/9/2013
Demob Date:		**Completion Date:**	
CERCLIS ID:		**RCRIS ID:**	
ERNS No.:		**State Notification:**	OEPA
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

Time-Critical Removal Action

1.1.2 Site Description

Ohio EPA Site Inspection - November 2010

In November 2010, Ohio EPA conducted a Site Inspection at Mullins Rubber Products (MRP) facility on Valley Pike in Riverside, Ohio, and noted the flow of groundwater is to the south and southwest of the potential source area. Six groundwater grab samples were collected using the Geoprobe® direct-push technology. The active deep production well was sampled, along with dry well number DW-2, which received cooling water from the MRP degreasing tanks. Ohio EPA documented PCE and TCE contamination in the active production well and dry wells at the source area in the November 2010 sampling.

Ohio EPA Expanded Site Inspection - December 2011

In December 2011, Ohio EPA conducted an Expanded Site Inspection (ESI) at the source area. Three Geoprobe pre-packed monitoring wells were installed. ESI samples documented PCE and TCE in both shallow and deep aquifers but contamination was highest in MW-3 located at the southwest corner of the source area. PCE was detected at a concentration of 300µg/L in MW-3. Higher concentrations of PCE in the shallow aquifer pointed to a shallow rather than a deep source of PCE.

Ohio EPA Supplemental Expanded Site Inspection - March 2013

In March 2013, Ohio EPA conducted a Supplemental Expanded Site Inspection (SESI) at the Site. SESI sampling results showed significant detections of TCE and PCE in the shallow sand and gravel aquifer. The highest concentration of PCE in shallow groundwater was detected at MW-14 (soil boring SB-14 location), approximately 50 feet (ft) down-gradient of the source facility. In addition, Ohio EPA observed PCE concentrations ranging from 5 to 14,000 µg/L along the southwestern perimeter of the source area and non-detect to 31 µg/L along the northeastern perimeter (upgradient) of the source area.

Additionally, PCE was detected at a concentration of 1,500 µg/L at MW-4 in a residential area (corner of Bushnell and Hypathia Avenues) located 900 ft southwest of the source area. The detection of VOCs in the groundwater underlying this residential area, which is down-gradient of the source area, prompted Ohio EPA to request EPA removal assistance in May 2013 to investigate potential vapor intrusion at the Site.

In a letter dated May 9, 2013, the Ohio EPA expressed concerns about the risk to human health from indoor air exposure to VOCs from a shallow PCE and TCE groundwater plume. Ohio EPA viewed the Site as a potential threat to the residences and businesses located southwest of the source area. Ohio EPA requested assistance from the EPA Removal Branch in evaluating options for addressing current and potential vapor intrusion risks at the Valley Pike VOC Site.

On June 14, 2013, the Health Assessment Section of the ODH provided health-based guidance to evaluate the results of vapor intrusion sub-slab and indoor air sampling for contaminants of concern at the Site.

Sub-Slab Screening Levels (residential properties):
PCE = 60 ppbv
TCE = 4 ppbv

Indoor Air Screening Levels (residential properties):
PCE = 6 ppbv
TCE = 0.4 ppbv

1.1.2.1 Location

The Valley Pike VOC Site is located in the residential area west and southwest of the source area, located at 2949 Valley Pike, in Riverside, Montgomery County, Ohio. The Site's geographic coordinates are 39° 47' 51.2376" North latitude and 84° 7' 55.5522" West longitude. The Site includes a PCE and TCE-contaminated groundwater plume flowing south and southwest of the source area into the adjacent residential area.

1.1.2.2 Description of Threat

The residential neighborhood located west and southwest of the source area is potentially being affected by PCE and/or TCE vapor intrusion. Vapor Intrusion is the subsurface migration of PCE and TCE vapors into the indoor air of residential properties at the Site.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

In July and August 2013, EPA conducted a removal site assessment at the Site. The purpose of the site assessment was to determine if vapor intrusion was occurring in the residential neighborhood west and southwest of the source area and to evaluate the Site for a potential time-critical removal action. During the site assessment, EPA conducted the following activities:

- Reviewed historical Ohio EPA groundwater and soil gas sampling results.

- Oversaw the Ohio EPA Site Investigation Field Unit use a Geoprobe unit to collect eight grab groundwater samples and install 16 nested soil gas probes at 9 locations.
- Analyzed four groundwater samples collected by Ohio EPA personnel
- Collected nine soil gas samples from the Ohio EPA installed soil gas probes
- Collected five sub-slab samples from residential properties and one sub-slab sample from a nonresidential property.
- Collected seven indoor air samples from residential properties and one indoor air sample from a nonresidential property.

Based on 2013 EPA data, the ODH concluded that a completed exposure pathway exists for vapor intrusion at the Site.

Based on the analytical results and Site conditions observed during the site assessment, the Site meets the criteria for a removal action pursuant to 40 CFR 300.415(b)(2) and poses an imminent and substantial threat to the public health or welfare of the United States or the environment.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

EPA sampling results from 2013 have documented that vapor intrusion is occurring in the Riverside residential neighborhood located west and southwest of the source area.

As of July 2013, the sub-slab samples from four residential properties have PCE concentrations ranging from 930 to 8,200 ppbv, which exceeds the ODH residential sub -slab screening level of 60 ppbv. The indoor air samples from two residential properties have PCE concentrations ranging from 6.9 to 32 ppbv, which exceeds the ODH residential indoor air screening level of 6 ppbv. These results document a completed exposure pathway for PCE vapor intrusion.

The sub-slab samples from three residential properties have TCE concentrations ranging from 60 to 160 ppbv, which exceeds the ODH residential sub-slab screening level of 4 ppbv. The indoor air samples from three residential properties have TCE concentrations ranging from 0.44 to 0.92 ppbv, which exceeds the ODH residential indoor air screening level of 0.4 ppbv. These results document a completed exposure pathway for TCE vapor intrusion.

ODH Health Consultation - September 2013

On September 4, 2013, ODH, under a Cooperative Agreement with the Agency for Toxic Substances and Disease Registry (ATSDR), submitted a Letter Health Consultation to EPA. The Health Consultation assesses the data that EPA collected and discusses the public health implications of exposure to VOCs from vapor intrusion from the Site. The Health Consultation provides the following conclusions and recommendations:

Health Consultation Conclusions

1. A completed exposure pathway exists for vapor intrusion, as PCE has been detected as high as 20,000 ppb in the groundwater, 30,000 ppb in the soil gas, 8,200 ppb in the sub-slab soil gas, and 31 ppb in the indoor air at one residence. TCE has been detected as high as 47 ppb in the groundwater, 5,600 ppb in the soil gas, 160 ppb in the sub-slab soil gas, and 0.87 ppb in the indoor air at the same residential property.

2. VOCs in the sub-slab soil gas samples at the four residences sampled (two located on Rondowa Avenue, one on Hypathia Avenue, and one on Bushnell Avenue) located in the neighborhood southwest of the MRP facility were detected at levels that could affect indoor air quality. PCE levels in the sub-slab samples exceeded both screening and action levels.

3. Concentrations of PCE and TCE in the indoor air of one residence tested in July 2013 exceeded screening levels.

4. More data is needed to conclude whether the vapor intrusion pathway could affect indoor air quality at other residential properties and harm people's health. At this time, only a few indoor air samples have been collected by EPA. Additionally, previous experience with vapor intrusion sites in the same general part of north Dayton have indicated potential for significant seasonal variation in soil gas levels under impacted homes.

Health Consultation Recommendations

1. Testing the indoor air of the other homes with high sub-slab results should be a priority. Other residences and businesses at risk of exposure via vapor intrusion pathway should have their sub-slab and indoor air sampled for PCE, TCE, and degradation products cis-1,2-DCE and vinyl chloride. Concurrent outdoor (ambient) air samples should also be collected. Sample collection during multiple seasons, including at least one sample in the winter, is recommended to characterize seasonal variability.

2. The home on Bushnell Avenue should be considered for mitigation to reduce or eliminate ongoing exposures to PCE and TCE in the indoor air. Occupied residences with sub-slab soil gas concentrations exceeding action levels should also be considered for mitigation.

3. The full extent of the VOC contamination, both in groundwater and soil gas, associated with the Valley Pike VOC site should be determined.

2.1.2 Response Actions to Date

See POLREP 1 for actions between December 9, 2013 and January 17, 2014.
See POLREP 2 for actions between January 18 and March 14, 2014.

Week of March 17, 2014
EPA collected 15 vapor intrusion samples. The samples collected were either sub-slab samples or crawl space samples.

The sub-slab and crawl space air samples are being collected using pre-cleaned, laboratory-supplied, 6-liter SUMMA canisters. The SUMMA canisters are being fitted

with flow regulators to allow sample collection over a 24-hour period. The samples are being analyzed for VOCs using EPA Method TO-15.

For sub-slab sampling, the sub-slab probes are being installed and the samples are being collected in accordance with the "*Standard Operating Procedures for the Construction and Installation of Permanent Sub-Slab Soil Gas Wells, #2082,*"(SOP No. 2082) dated March 29, 2007, under the EPA Response Engineering and Analytical Contract.

The crawl space samples are being collected by either placing the SUMMA canister within the crawl space and turning on the SUMMA canister, or by attaching the Teflon tubing to a PVC pipe and extending the pipe as far into the crawl space as possible.

EPA installed two sub-slab depressurization systems (SSDS), also known as a vapor abatement systems, at two residential properties.

Week of March 24, 2014
No vapor intrusion sampling was conducted this week.

EPA conducted a groundwater investigation in the neighborhood. A total of 14 temporary wells were installed and the groundwater was sampled and sent to a commercial laboratory for VOC analysis. The groundwater investigation will determine the extent of VOC contamination in the neighborhood groundwater and identify areas for future Vapor Intrusion sampling.

EPA installed two SSDSs, also known as a vapor abatement systems, at two residential properties.

Week of March 31, 2014
No residential vapor intrusion sampling was conducted this week.

EPA installed three SSDSs, also known as a vapor abatement systems, at three residential properties.

Week of April 7, 2014
EPA collected 17 residential vapor intrusion samples. The samples collected were either sub-slab samples or crawl space samples.

EPA installed two SSDSs, also known as a vapor abatement systems, at two residential properties.

Week of April 14, 2014
EPA collected 16 residential vapor intrusion samples. The samples collected were either sub-slab samples or crawl space samples.

EPA installed one SSDS, also known as a vapor abatement system, at one residential property.

Week of April 21, 2014
EPA collected 14 residential vapor intrusion samples. The samples collected were either sub-slab samples or crawl space samples.

EPA installed two SSDSs, also known as a vapor abatement systems, at two residential properties.

Week of April 28, 2014
EPA collected 7 residential vapor intrusion samples. The samples collected were either sub-slab samples or crawl space samples.

EPA installed two SSDSs, also known as a vapor abatement systems, at two residential properties.

Week of May 5, 2014
EPA collected 15 residential vapor intrusion samples. The samples collected were either sub-slab samples or crawl space samples.

EPA installed three SSDSs, also known as a vapor abatement systems, at three residential properties.

Week of May 12, 2014
EPA collected 15 residential vapor intrusion samples. The samples collected were either sub-slab samples or crawl space samples.

EPA installed one SSDS in one residential property.

On a weekly basis, EPA, Public Health - Dayton & Montgomery County and ERRS are conducting meetings with property owners which are eligible to receive a SSDS. Sample results are reviewed by EPA and health questions answered by Public Health. To be eligible, the property needs to have a baseline sub-slab or crawl space or indoor air PCE and/TCE concentration which exceeds the ODH PCE and/or TCE screening levels. At the meeting, if the property owner agrees to accept an EPA-installed SSDS, ERRS immediately schedules a walk-through of each property with its SSDS contractor for SSDS design. The walk-through will allow the SSDS installation contractor to determine the layout and the cost estimate for installation of the SSDS.

As of May 15, 2014, the following are the up-to date vapor intrusion Site sampling numbers:
- 364 total residential properties with Area of Concern (determined by groundwater investigation)
- 164 properties sampled
- 131 properties are eligible for sampling but have yet signed an access agreement
- 59 properties have results greater than ODH screening levels and are eligible for a SSDS
- 28 properties currently have an installed SSDS
- 84 properties have results less than ODH screening levels
- 29 properties are scheduled for baseline sampling
- 12 properties have signed an access agreement and are awaiting sample scheduling
- 12 properties have been sampled and have baseline data pending from the laboratory
- 14 properties have denied EPA access to conduct vapor intrusion sampling
- 24 properties are vacant and abandoned

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

EPA is investigating PRPs at the Site.

2.1.4 Progress Metrics

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*
N/A					

2.2 Planning Section

2.2.1 Anticipated Activities

See below in Section 2.2.1.1.

2.2.1.1 Planned Response Activities

1. Continue to implement a Site Health and Safety Plan;

2. Conduct vapor intrusion sampling (for VOCs) and extent of contamination sampling utilizing groundwater, soil gas, sub-slab, and indoor air sampling techniques. The area of investigation includes the source area on the east, Broadmead Avenue on the west (approximately 1,500 feet southwest of the source area),

3. If the ODH Sub-Slab or Indoor Air Screening Level for a contaminant of concern (e.g., PCE or TCE) is exceeded for a residential structure, design and install a vapor abatement mitigation system in the structure impacted by subsurface gas migration. The abatement system will include installation of a SSDS or crawl space depressurization system, sealing cracks in walls and floors of the basement, and sealing drains that could be a pathway. The vapor abatement mitigation system will be designed to control levels of VOCs to below ODH sub-slab and indoor air screening levels; and

4. Develop and implement a performance sample plan to confirm that ODH screening levels are achieved for contaminants of concern (PCE, TCE, etc) following installation of a SSDS.

2.2.1.2 Next Steps

1. Continue reaching out to residents in the neighborhood to obtain access agreements to conduct vapor intrusion sampling.

2. Continue vapor intrusion sampling in the residential neighborhood.

3. Generate sample result letters and schedule meetings with residents to discuss

sampling results.

4. Schedule SSDS design walk-through times and installation dates, as necessary.

5. For residential properties where a SSDS was installed, conduct 30-day post installation proficiency air sampling.

6. Conduct upgrades to the SSDS, if necessary.

7. Generate O&M Manuals for properties that have an SSDS installed.

8. Schedule a public meeting at Stebbins High School during the month of July to explain to the public the status of the removal action.

2.2.2 Issues

To schedule vapor intrusion sampling, please visit or the call EPA project office located at:

EPA Project Office
2049 Harshman Road
Riverside, OH 45424
937.237.7530

2.3 Logistics Section

None.

2.4 Finance Section

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	$1,000,000.00	$237,269.71	$762,730.29	76.27%
START - Weston	$100,000.00	$88,531.00	$11,469.00	11.47%
START - Tetra Tech	$30,000.00	$4,397.00	$25,603.00	85.34%
Intramural Costs				
USEPA - Direct	$75,000.00	$41,000.00	$34,000.00	45.33%
Total Site Costs	$1,205,000.00	$371,197.71	$833,802.29	69.20%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific

figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

2.5.1 Safety Officer

A safety plan has been completed, reviewed and signed by all personnel on site.

2.5.2 Liaison Officer

Periodic meetings conducted with OEPA, Public Health - Dayton & Montgomery County, and ODH to update agencies on sample results.

Monthly meetings conducted with Riverside council members and Assistant City Manager.

2.5.3 Information Officer

EPA's Office of Public Affairs (Ginny Narsette - Community Involvement Coordinator) has completed the following:
1. Set up the following website:

http://www.epa.gov/Region5/cleanup/valleypikevocsite/index.html

2. EPA's Office of Public Affairs went door-to-door during the week of March 17th and obtained 40+ signed access agreements.

3. Set up a repository containing site information. The repository is located at:

Dayton Metro Library
6160 Chambersburg Road
Huber Heights, OH 45424

6. EPA has set up a local project office to schedule sampling and to answer questions.

EPA Local Project Office
2049 Harshman Road (located next to Subway)
Riverside, OH 45424
937.237.7530

3. Participating Entities

3.1 Unified Command

N/A

3.2 Cooperating Agencies

Ohio EPA
Public Health - Dayton & Montgomery County
Ohio Department of Health
City of Riverside

4. Personnel On Site

EPA OSC - 1
START (Tetra Tech) - 1
ERRS - 2
At-Home Radon Contractor - SSDS installer
Environmental Doctor Contractor - SSDS installer

5. Definition of Terms

IA - indoor Air
ODH - Ohio Department of Health
PCE - tetrachloroethylene
ppb - parts per billion
ppbv - parts per billion by volume
SS - sub-slab
TCE - trichloroethylene

6. Additional sources of information

6.1 Internet location of additional information/report

Additional site information can be found at the following EPA public website:

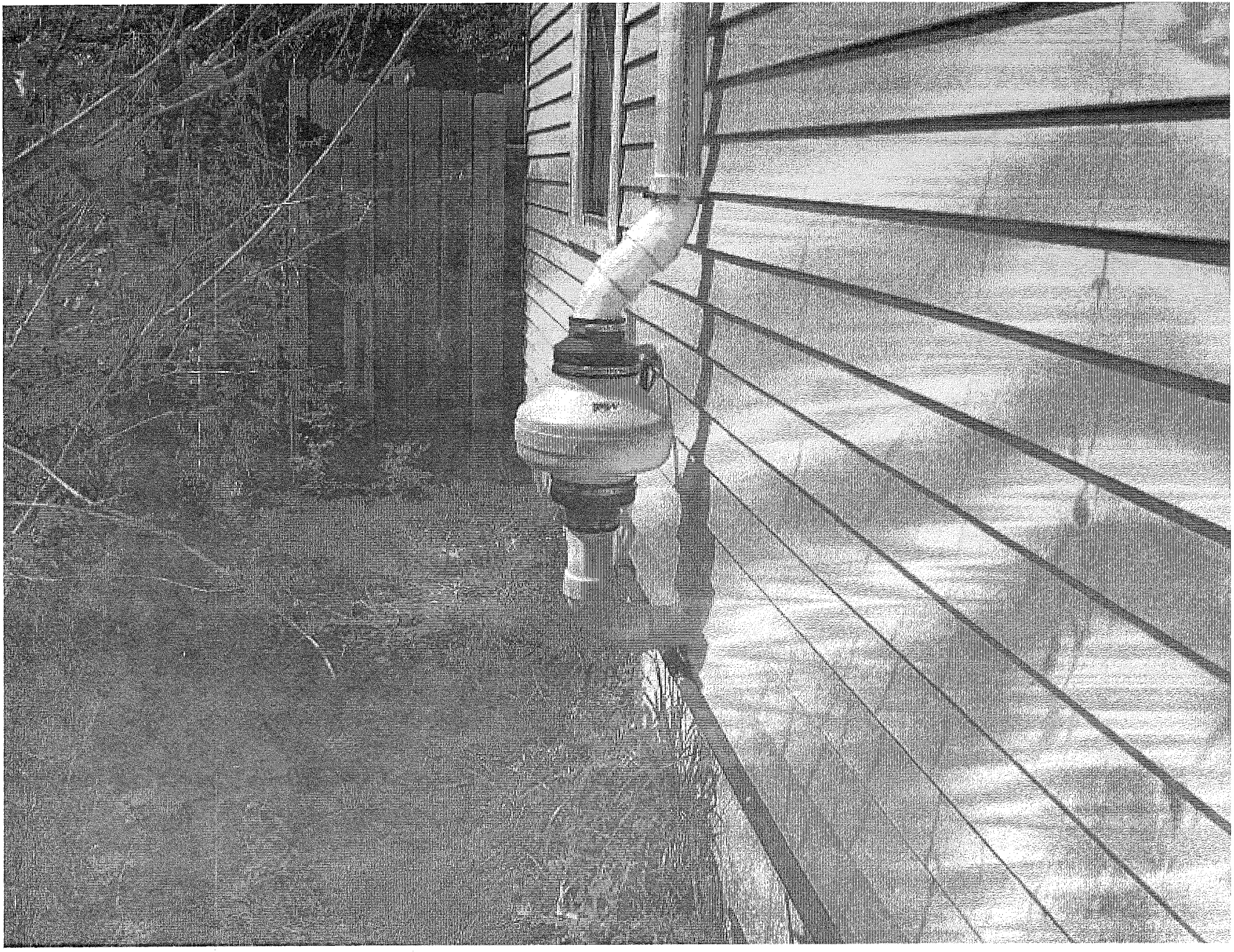
http://www.epa.gov/Region5/cleanup/valleypikevocsite/index.html

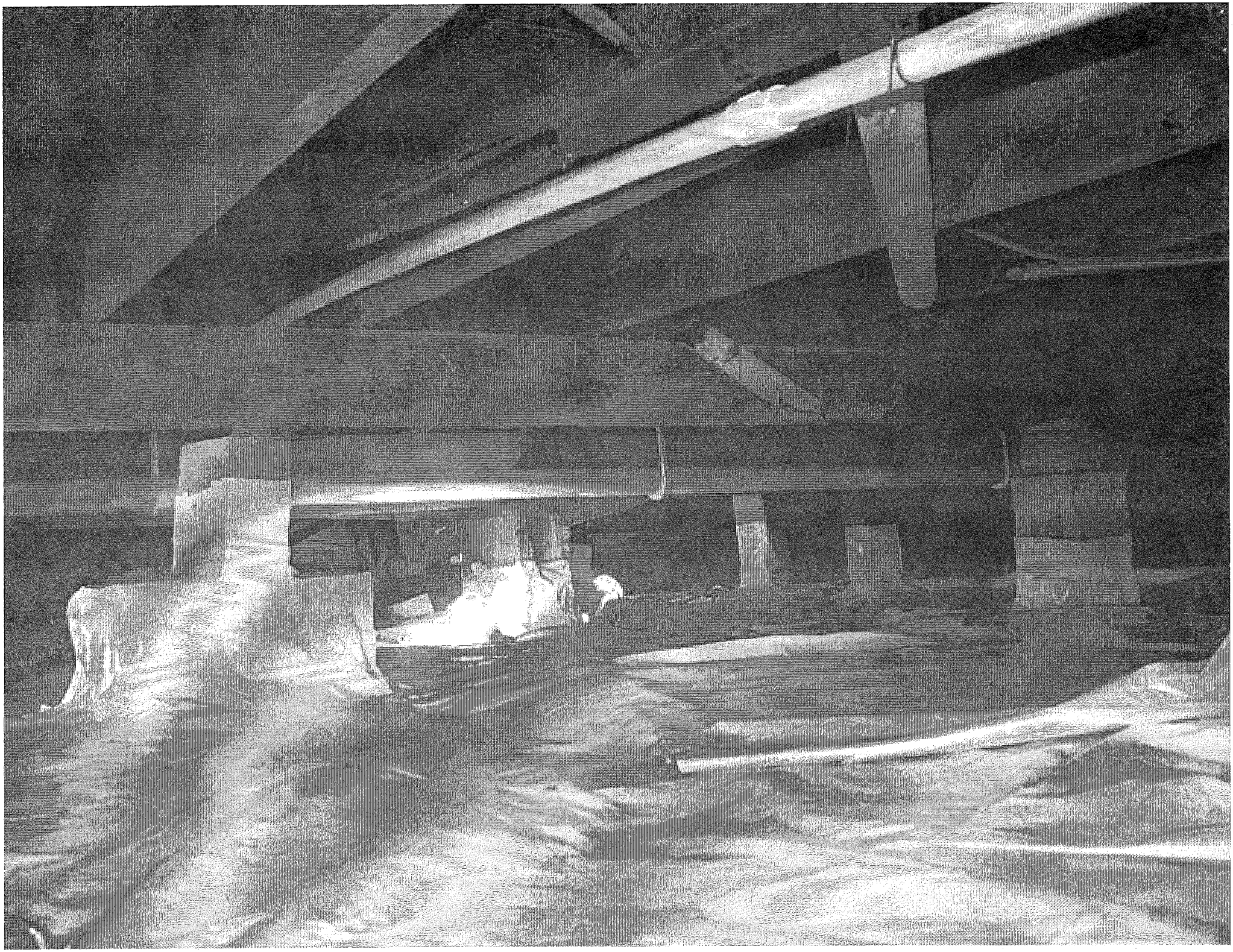
6.2 Reporting Schedule

POLREP #4 will be issued in July 2014.

7. Situational Reference Materials

None.






ALL
SEASON
SAE 10W-40
MOTOR OIL